

Appl. No. 09/838,004  
Amdt. dated November 6, 2003  
Reply to Office Action of November 20, 2002

PATENT

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

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- 1                    1.        (Original) A safety circuit for an electric motor including at least one  
2 power input, at least one motor winding and an input ground, the safety circuit comprising:
- 3                    a.        a relay coupled to the at least one power input and the input ground; and
- 4                    b.        at least one transistor switch coupled to the relay, the at least one power  
5 input and the at least one motor winding.
- 1                    2.        (Original) A safety circuit in accordance with claim 1 wherein the relay  
2 comprises an inductor that is inductively coupled to the at least one transistor switch.
- 1                    3.        (Original) A safety circuit in accordance with claim 1 wherein the relay  
2 comprises a resistor that is coupled to the at least one transistor switch.
- 1                    4.        (Original) A safety circuit for an electric motor including at least first and  
2 second power inputs, at least first and second motor windings and an input ground, the safety  
3 circuit comprising:
- 4                    a.        a relay coupled to the at least two power inputs and the input ground; and
- 5                    b.        at least first and second transistor switches coupled to the relay, the first  
6 transistor switch being coupled the first power input and the first motor winding, and the second  
7 transistor switch being coupled to the second power input and the second motor winding.
- 1                    5.        (Original) A safety circuit in accordance with claim 4 wherein the relay  
2 comprises an inductor that is inductively coupled to the at least first and second transistor  
3 switches.

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1 6. (Original) A safety circuit in accordance with claim 4 wherein the relay  
2 comprises a resistor that is coupled to the at least first and second transistor switches.

1 7. (Original) An electric motor comprising:  
2 a. at least first and second power inputs;  
3 b. at least first and second motor windings;  
4 c. an input ground; and  
5 d. a safety circuit comprising:  
6 i. a relay coupled to the at least two power inputs and the input ground; and  
7 ii. at least first and second transistor switches coupled to the relay, the first  
8 transistor switch being coupled the first power input and the first motor winding, and the second  
9 transistor switch being coupled to the second power input and the second motor winding.

1 8. (Original) An electric motor in accordance with claim 7 wherein the relay  
2 comprises an inductor that is inductively coupled to the at least first and second transistor  
3 switches.

1 9. (Original) An electric motor in accordance with claim 7 wherein the relay  
2 comprises a resistor that is coupled to the at least first and second transistor switches.

1 10. (Original) A method of operating an electric motor including at least one  
2 power input, at least one motor winding and an input ground, the method comprising:

- 3 a. providing a safety circuit comprising:  
4 i. a relay coupled to the at least one power input and the input ground; and

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5 ii. at least one transistor switch coupled to the relay, the at least one power  
6 input and the at least one motor winding;

7 b. supplying power to the at least one power input; and

8 c. ceasing operation of the electric motor if the relay is not coupled to  
9 ground.

1 11. (Original) A method in accordance with claim 10 wherein the relay  
2 comprises an inductor that is inductively coupled to the at least one transistor switch.

1 12. (Original) A method in accordance with claim 10 wherein the relay  
2 comprises a resistor that is coupled to the at least one transistor switch.

1 13. (Original) A method of operating an electric motor including at least first  
2 and second power inputs, at least first and second motor windings and an input ground, the  
3 method comprising:

4 a. providing a safety circuit comprising:

5 i. a relay coupled to the at least first and second power inputs and the input  
6 ground; and

7 ii. at least first and second transistor switches coupled to the relay, the first  
8 transistor switch being coupled the first power input and the first motor winding, and the second  
9 transistor switch being coupled to the second power input and the second motor winding;

10 b. supplying power to the at least first and second power inputs; and

11 c. ceasing operation of the electric motor if the relay is not coupled to  
12 ground.

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1 14. (Original) A method in accordance with claim 13 wherein the relay  
2 comprises an inductor that is inductively coupled to the at least first and second transistor  
3 switches.

1 15. (Original) A method in accordance with claim 13 wherein the relay  
2 comprises a resistor that is coupled to the at least first and second transistor switches.

1 16. (Original) A pump comprising an electric motor comprising:  
2 a. at least first and second power inputs;  
3 b. at least first and second motor windings;  
4 c. an input ground; and  
5 d. a safety circuit comprising:  
6 i. a relay coupled to the at least two power inputs and the input ground; and  
7 ii. at least first and second transistor switches coupled to the relay, the first  
8 transistor switch being coupled the first power input and the first motor winding, and the second  
9 transistor switch being coupled to the second power input and the second motor winding.

1 17. (Original) A pump in accordance with claim 16 wherein the relay  
2 comprises an inductor that is inductively coupled to the at least first and second transistor  
3 switches.

1 18. (Original) A pump in accordance with claim 16 wherein the relay  
2 comprises a resistor that is coupled to the at least first and second transistor switches.

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